December 12, 2002

RE: K S Bearings, Inc 031-14976-00002
TO: Interested Parties / Applicant

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for consideration at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosure

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL OFFICE OF AIR QUALITY

KS Bearings, Inc.
1515 West Main Street
Greensburg, Indiana 47240

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 031-14976-00002	
Original signed by Paul Dubenetzky Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: December 12, 2002 Expiration Date: December 12, 2007

TABLE OF CONTENTS

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]
There are no specific Compliance Monitoring Requirements applicable to these facilities

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary bearings manufacturing source.

Authorized Individual:	Plant Manager
Source Address:	1515 West Main Street, Greensburg, Indiana 47240
Mailing Address:	P.O. Box 319, Greensburg, Indiana 47240
General Source Phone Number:	812-663-3401
SIC Code:	3714
County Location:	Decatur
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

One (1) Cast Bronze Strip (CBS) Line, constructed after 1990, with a maximum capacity of 2,400 pounds per hour of steel, to which with a maximum of 3,300 pounds per hour of bronze is applied, consisting of the following:

(a) One (1) cold start furnace, identified as PT #6, controlled by the CBS baghouse and exhausting to stack #8, capacity: 0.75 tons of metal per hour.

(b) Three (3) electric holding furnaces, identified as PT #7, #12, and #11, controlled by the CBS baghouse and exhausting to stack #8, capacity: 1.65 tons of metal per hour, each.

(c) Two (2) on-line electric induction melting furnaces, identified as PT #2 and PT #4, controlled by the CBS baghouse and exhausting to stack #8, capacity: 1.65 tons of metal per hour, each.

(d) One (1) hot oil quench unit, identified as PT #15.

(e) Two (2) rough milling units, identified as PT #13, controlled by the CBS cyclone/bag filter and exhausting to stack #10.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including:

(1) three (3) oxygen scavenging flames (units 81, 82 and 16) with a total capacity of 0.1 million British thermal unit per hour;

(2) two (2) pre-ladle heaters (units 9 and 10) with a total capacity of 0.7 million British thermal unit per hour; and

(3) three (3) natural gas-fired boilers, identified as boilers #1, #2 and #3 (units 50, 60 and 70), all constructed prior to 1972, with heat input capacities of 8.37, 5.02 and 6.69 million British thermal units per hour, respectively. [326 IAC 6-2-3]

(b) Refractory storage not requiring air pollution control equipment.

(c) Application of oils, greases lubricants or other nonvolatile materials applied as temporary protective coatings.

(d) Machining where an aqueous cutting coolant continuously floods the machining interface.

(e) Cleaners and solvents characterized as follows:

(1) having a vapor pressure equal to or less than 2 kiloPascals; 15 millimeters of mercury; or 0.3 pounds per square inch measured at 38EC (100EF); or

(2) having a vapor pressure equal to or less than 0.7 kiloPascals; 5 millimeters of mercury; or 0.1 pounds per square inch measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(f) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. Welding operations use less than six hundred and twenty-five (625) pounds of wire or rod per day.

(g) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1 percent by volume.

(h) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.

(i) Quenching operations used with heat treating processes.

(j) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(k) Paved roads and parking lots with public access.

(l) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(m) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume. [326 IAC 6-3-2]

(n) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or

equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6-3-2]

(o) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(p) Other activities or categories not previously identified:

(1) Miscellaneous dry machining and deburring operations producing large shavings.

(2) Miscellaneous metal washing operations.

(3) One (1) aluminum/bronze wet machining operation, rated at 275 pounds of aluminum/bronze per hour.

(4) One (1) bronze wet machining operation, rated at 1,200 pounds of bronze per hour.

(5) One (1) nickel electroplating operation, rated at 6.69 pounds per hour of bath solution.

(6) One (1) immersion tin dip operation, capacity: 275 pounds per hour.

(7) Two (2) rough dry mills, capacity: 80 pounds per hour, each.

(8) One (1) finish wet mill, capacity: 70 pounds per hour.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM , the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual"

as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

(c) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; and

(3) Denial of a permit renewal application.

(b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,

Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

(b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee’s right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action, or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4320 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P] [326 IAC 6-3-2]

(a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than one hundred (100) pounds per hour shall not exceed 0.551 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than one hundred (100) pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Overall Source Limit [326 IAC 2-8] [326 IAC 2-2]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Any change or modification that increases the potential to emit PM to 250 tons per year or more shall cause this source to become a major source pursuant to 326 IAC 2-2, PSD, and shall require prior OAQ approval.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.8 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.10 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.12 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.13 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

C.14 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(b) Whenever a condition in this permit requires the measurement of a temperature, flow rate, or pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(c) The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.

(d) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

(a) A compliance schedule for meeting the requirements of 40 CFR 68; or

(b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.16 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall constitute a violation of the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) Whenever a condition in this permit requires the measurement of a temperature, or flow rate, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(c) The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.

(d) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156

(b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR

82.158.

(c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Cast Bronze Strip (CBS) Line

One (1) Cast Bronze Strip (CBS) Line, constructed after 1990, with a maximum capacity of 2,400 pounds per hour of steel, to which with a maximum of 3,300 pounds per hour of bronze is applied, consisting of the following:

(a) One (1) cold start furnace, identified as PT #6, controlled by the CBS baghouse and exhausting to stack #8, capacity: 0.75 tons of metal per hour.

(b) Three (3) electric holding furnaces, identified as PT #7, #12, and #11, controlled by the CBS baghouse and exhausting to stack #8, capacity: 1.65 tons of metal per hour, each.

(c) Two (2) on-line electric induction melting furnaces, identified as PT #2 and PT #4, controlled by the CBS baghouse and exhausting to stack #8, capacity: 1.65 tons of metal per hour, each.

(d) One (1) hot oil quench unit, identified as PT #15.

(e) Two (2) rough milling units, identified as PT #13, controlled by the CBS cyclone/bag filter and exhausting to stack #10.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Particulate Matter (PM_{10}) [326 IAC 2-8-4]

(a) The potential to emit PM_{10} from the Cast Bronze Strip (CBS) Line furnaces, all exhausting to the CBS baghouse and stack #8, shall not exceed a total of 9.6 pounds per hour.

(b) The potential to emit PM_{10} from the two (2) rough milling units at the Cast Bronze Strip (CBS) Line, both exhausting to the CBS cyclone/bag filter and stack #10, shall not exceed a total of 9.6 pounds per hour.

This is equivalent to a potential to emit PM_{10} from the CBS Line of 84.1 tons per year, and the potential to emit PM_{10} from the entire source of less than 100 tons per year. Therefore, the requirements of 326 IAC 2-7, Part 70, are not applicable.

D.1.2 Particulate [326 IAC 6-3-2(e)]

(a) Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes),the particulate emission rate from the Cast Bronze Strip (CBS) Line furnaces, all exhausting to the CBS baghouse and stack #8, shall not exceed 8.27 pounds per hour when operating at a process weight rate of 5,700 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

(b) Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes),the particulate emission rate from the two (2) rough milling units at the Cast Bronze Strip (CBS) Line, both exhausting to the CBS cyclone/bag filter and stack #10, shall not exceed 8.27 pounds per hour when operating at a process weight rate of 5,700 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

Compliance Determination Requirements

D.1.4 Particulate Control

(a) In order to comply with Conditions D.1.1 and D.1.2, the baghouse for particulate control shall be in operation and control emissions from the Cast Bronze Strip (CBS) Line furnaces at all times that any of the furnaces are in operation.

(b) In order to comply with Conditions D.1.1 and D.1.2, the cyclone/bag filter for particulate control shall be in operation and control emissions from the two (2) rough milling units at the Cast Bronze Strip (CBS) Line at all times that either or both of the rough milling units are in operation.

D.1.5 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

Within 90 days after issuance of this permit, in order to demonstrate compliance with Conditions D.1.1 and D.1.2, the Permittee shall perform PM and PM_{10} testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM_{10} includes filterable and condensible PM_{10}. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.6 Visible Emissions Notations

(a) Visible emission notations of the CBS Line stacks (stack #8 and stack #10) exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.1.7 Parametric Monitoring

(a) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the CBS Line furnaces at least once per shift when the furnaces are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 5.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) The Permittee shall record the total static pressure drop across the cyclone/bag filter combination used in conjunction with the CBS Line rough milling units at least once per shift when the rough milling units are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.5 and 4.5 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instruments Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.8 Baghouse Inspections

An inspection shall be performed within the last month of each calendar quarter of all bags controlling the CBS Line. All defective bags shall be replaced.

D.1.9 Cyclone Inspections

An inspection shall be performed within the last month of each calendar quarter of all cyclones controlling the CBS Line.

D.1.10 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan,

response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.1.11 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.12 Record Keeping Requirements

(a) To document compliance with Condition D.1.6, the Permittee shall maintain records of visible emission notations of the CBS Line stacks (stack #8 and stack #10) exhausts once per shift.

(b) To document compliance with Condition D.1.7, the Permittee shall maintain per shift records of the total static pressure drops during normal operation.

(c) To document compliance with Conditions D.1.8 and D.1.9, the Permittee shall maintain records of the results of the inspections required under Conditions D.1.8 and D.1.9 and the dates the vents are redirected.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including:

(1) three (3) oxygen scavenging flames (units 81, 82 and 16) with a total capacity of 0.1 million British thermal unit per hour;

(2) two (2) pre-ladle heaters (units 9 and 10) with a total capacity of 0.7 million British thermal unit per hour; and

(3) three (3) natural gas-fired boilers, identified as boilers #1, #2 and #3 (units 50, 60 and 70), all constructed prior to 1972, with heat input capacities of 8.37, 5.02 and 6.69 million British thermal units per hour, respectively. [326 IAC 6-2-3]

(b) Refractory storage not requiring air pollution control equipment.

(c) Application of oils, greases lubricants or other nonvolatile materials applied as temporary protective coatings.

(d) Machining where an aqueous cutting coolant continuously floods the machining interface.

(e) Cleaners and solvents characterized as follows:

(1) having a vapor pressure equal to or less than 2 kiloPascals; 15 millimeters of mercury; or 0.3 pounds per square inch measured at 38EC (100EF); or

(2) having a vapor pressure equal to or less than 0.7 kiloPascals; 5 millimeters of mercury; or 0.1 pounds per square inch measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(f) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. Welding operations use less than six hundred and twenty-five (625) pounds of wire or rod per day.

(g) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1 percent by volume.

(h) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.

(i) Quenching operations used with heat treating processes.

(j) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(k) Paved roads and parking lots with public access.

(l) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(m) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume. [326 IAC 6-3-2]

(n) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6-3-2]

(o) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(p) Other activities or categories not previously identified:

(1) Miscellaneous dry machining and deburring operations producing large shavings.

(2) Miscellaneous metal washing operations.

(3) One (1) aluminum/bronze wet machining operation, rated at 275 pounds of aluminum/bronze per hour.

(4) One (1) bronze wet machining operation, rated at 1,200 pounds of bronze per hour.

(5) One (1) nickel electroplating operation, rated at 6.69 pounds per hour of bath solution.

(6) One (1) immersion tin dip operation, capacity: 275 pounds per hour.

(7) Two (2) rough dry mills, capacity: 80 pounds per hour, each.

(8) One (1) finish wet mill, capacity: 70 pounds per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Particulate [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (d) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (b)), particulate emissions from all facilities used for indirect heating purposes which were existing and in operation on or before June 8, 1972, shall not exceed 0.8 pounds of particulate matter per million British thermal units heat input.

D.2.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies), the particulate emission rate from the insignificant grinding and machining operations and the insignificant furnaces shall each be limited by the following

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.2.3 Fuel Usage

The boilers shall use natural gas only.

Compliance Determination Requirement

D.2.4 Particulate Control

In order to comply with D.2.1, the control equipment for particulate control shall be in operation and control emissions from the grinding and machining operations at all times that the grinding and machining operations are in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no specific Compliance Monitoring Requirements applicable to these facilities.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: KS Bearings, Inc.
Source Address: 1515 West Main Street, Greensburg, Indiana 47240
Mailing Address: P.O. Box 319, Greensburg, Indiana 47240
FESOP No.: F 031-14976-00002

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Affidavit (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: KS Bearings, Inc.
Source Address: 1515 West Main Street, Greensburg, Indiana 47240
Mailing Address: P.O. Box 319, Greensburg, Indiana 47240
FESOP No.: F 031-14976-00002

This form consists of 2 pages **Page 1 of 2**

9 This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: KS Bearings, Inc.
Source Address: 1515 West Main Street, Greensburg, Indiana 47240
Mailing Address: P.O. Box 319, Greensburg, Indiana 47240
FESOP No.: F 031-14976-00002

Months: _____ to _____Year: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: ______________________

Form Completed By: ______________________________________

Title/Position: ______________________________________

Date: ______________________________________

Phone: ______________________________________

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document for
Federally Enforceable State Operating Permit (FESOP) Renewal

Source Name: **KS Bearings, Inc.**
Source Location: **1515 West Main Street, Greensburg, Indiana 47240**
County: **Decatur**
SIC Code: **3714**
Operation Permit No.: **F 031-14976-00002**
Permit Reviewer: **CarrieAnn Paukowits**

On September 13, 2002, the Office of Air Quality (OAQ) had a notice published in the Greensburg Daily News, Greensburg, Indiana, stating that KS Bearings, Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) renewal to continue to operate the stationary bearings manufacturing source with a baghouse and cyclone/bag filters as controls. The notice also stated that OAQ proposed to issue a FESOP renewal for this operation and provided information on how the public could review the proposed FESOP renewal and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP renewal should be issued as proposed.

Upon further review, the OAQ has decided to make the following changes to the FESOP renewal. The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded)**:

Change 1:

The general provisions; term of permit rule cite was added to Condition B.3 (Permit Term). In order to clarify the permit term for renewals, the following change has been made:

B.3 Permit Term [326 IAC 2-8-4(2)] **[326 IAC 2-1.1-9.5]**

This permit is issued for a fixed term of five (5) years from the ~~original~~ **issuance** date of **this permit**, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

Change 2:

Since Condition B.8(c) (Duty to Supplement and Provide Information) already addresses confidentiality, the last sentence of (b) was revised to remove the statement about confidential information, and (c) was updated for clarity. Changes are as follows:

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit. ~~or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]~~

(c) **For information furnished by the Permittee to IDEM, OAQ,** the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

Change 3:

The requirement to include emergencies in the Quarterly Deviation and Compliance Monitoring Report has been moved from Condition B.15 to Condition B.14. In Condition B.14 (Emergency Provisions), the statement at the end of (b)(4) has been removed because it is already stated in (f). Changes are as follows:

B.14 Emergency Provisions [326 IAC 2-8-12]

(b) (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

~~Failure to notify IDEM, OAQ, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]~~

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

~~(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.~~

Change 4:

Condition B.18 (Permit Amendment or Revision) has been revised to replace “should” with “shall” in (b) as follows:

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application ~~should~~ **shall** be certified by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

Change 5:

In order to be consistent with 326 IAC 2-8-15 (a)(5), the rule cite has been revised in Condition B.19(a)(5) (Operational Flexibility). Condition B.19(b) has been removed, because this is a Part 70 requirement, but not a FESOP requirement.

B.19 Operational Flexibility [326 IAC 2-8-15] **[326 IAC 2-8-11.1]**

(a) (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b)**(2)**, (c)(1), and (d).

~~(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:~~

~~(1) A brief description of the change within the source;~~

~~(2) The date on which the change will occur;~~

~~(3) Any change in emissions; and~~

~~(4) Any permit term or condition that is no longer applicable as a result of the change.~~

~~The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.~~

~~(c)~~**(b)** Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

~~(d)~~**(c)** Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

Change 6:

In Condition B.22 (c) (Transfer of Ownership or Operational Control), the rule cite has been corrected as follows.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-~~11~~ **10**(b)(3)]

Change 7:

326 IAC 2-1.1-7 specifies that nonpayment may result in revocation of the permit. This is not specified in 326 IAC 2-8; therefore, this rule cite is being added to Condition B.23. Also, the section and phone number of the department that the Permittee can contact has been corrected in Condition B.23(c) as follows:

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] **[326 IAC 2-1.1-7]**

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-~~0425~~ **4320** (ask for OAQ, ~~Technical Support and Modeling Section~~ **I/M & Billing Section)**, to determine the appropriate permit fee.

Change 8:

Condition C.1 (Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour) has been added to the FESOP as follows. All remaining Section C conditions have been renumbered.

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

(a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than one hundred (100) pounds per hour shall not exceed 0.551 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than one hundred (100) pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

Change 9:

Condition C.9(e) (previously C.8(e)) (Asbestos Abatements Projects) has been revised to correct the rule cite as follows:

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-~~4~~**1**, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

Change 10:

The following was added to Condition C.11 (previously C.10) (Compliance Requirements) to state what IDEM, OAQ does when stack testing, monitoring, or reporting is required to assure compliance with applicable requirements, as follows:

C.11 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements **by issuing an order under 326 IAC 2-1.1-11**. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Change 11:

Condition C.14(c) (previously C.13(c)) was added to address pH better, as follows:

C.14 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

(b) Whenever a condition in this permit requires the measurement of a temperature, **or** flow rate, ~~or pH level,~~ the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(c) The Preventive Maintenance Plan for the pH meter shall include calibration using known standards. The frequency of calibration shall be adjusted such that the typical error found at calibration is less than one pH point.

~~(c)~~ **(d)** The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Change 12:

In Condition C.16(e) (previously C.15(e)) (Compliance Response Plan - Preparation, Implementation, Records, and Reports), the rule cite was corrected to reflect the FESOP rules instead of the Title V rules, as follows:

C.16 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of ~~326 IAC 2-7-16~~ **326 IAC 2-8-12** (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

Change 13:

Condition C.19(d) (formerly C.18(d)) (General Reporting Requirements) has been revised to indicate all forms as follows:

C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(d) Unless otherwise specified in this permit, ~~any quarterly or semi-annual~~ **all** report**s** required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. ~~The reports do~~ **All reports do** require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Change 14:

Previously, the terms "particulate" and "particulate matter" were both used in the 326 IAC 6-3, but revisions were made to the rule which became effective on June 12, 2002 that included using the term "particulate" consistently in 326 IAC 6-3. Therefore, the titles of Conditions D.1.2, D.2.2 and D.2.4 have been revised and Condition D.1.4 has been changed. Condition D.2.4 has also been revised to reference the correct condition. Changes are as follows:

D.1.2 Particulate ~~Matter (PM)~~ [326 IAC 6-3-2(e)]

D.2.2 Particulate ~~Matter (PM)~~ [326 IAC 6-3-2]

D.1.4 Particulate ~~Matter (PM)~~ **Control**

(a) In order to comply with Conditions D.1.1 and D.1.2, the baghouse for ~~PM and PM_{10}~~ **particulate** control shall be in operation and control emissions from the Cast Bronze Strip (CBS) Line furnaces at all times that any of the furnaces are in operation.

(b) In order to comply with Conditions D.1.1 and D.1.2, the cyclone/bag filter for ~~PM and PM_{10}~~ **particulate** control shall be in operation and control emissions from the two (2) rough milling units at the Cast Bronze Strip (CBS) Line at all times that either or both of the rough milling units are in operation.

D.2.4 Particulate ~~Matter (PM)~~ **Control**

In order to comply with ~~D.3.1~~ **D.2.1**, the control equipment for particulate control shall be in operation and control emissions from the grinding and machining operations at all times that the grinding and machining operations are in operation.

Change 15:

Condition D.1.10 (Broken or Failed Bag Detection) was revised to describe when a failed unit will be shut down as follows:

D.1.10 Broken or Failed Bag Detection

(b) For single compartment baghouses, **if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then** failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Change 16:

The title of Condition D.2.1 was revised because 326 IAC 6-2 is for Particulate Emissions not Particulate Matter Emissions, as follows:

D.2.1 Particulate ~~Matter Limitation (PM)~~ [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3 (d) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (b)), particulate emissions from all facilities used for indirect heating purposes which were existing and in operation on or before June 8, 1972, shall not exceed 0.8 pounds of particulate matter per million British thermal units heat input.

Change 17:

In the Emergency Occurrence Report form, the first box was revised to include the word "working" in order to be consistent with 326 IAC 2-8-12(b)(5) and the Emergency Provision as follows:

This form consists of 2 pages **Page 1 of 2**

9 This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (2) **working** days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD)
for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name:	**KS Bearings, Inc.**
Source Location:	**1515 West Main Street, Greensburg, Indiana 47240**
County:	**Decatur**
SIC Code:	**3714**
Operation Permit No.:	**F 031-14976-00002**
Permit Reviewer:	**CarrieAnn Paukowits**

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from KS Bearings, Inc. relating to the operation of the bearings manufacturing source. KS Bearings, Inc. was issued FESOP 031-7991-00002 on June 24, 1997.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

One (1) Cast Bronze Strip (CBS) Line, constructed after 1990, with a maximum capacity of 2,400 pounds per hour of steel, to which with a maximum of 3,300 pounds per hour of bronze is applied, consisting of the following:

(a) One (1) cold start furnace, identified as PT #6, controlled by the CBS baghouse and exhausting to stack #8, capacity: 0.75 tons of metal per hour.

(b) Three (3) electric holding furnaces, identified as PT #7, #12, and #11, controlled by the CBS baghouse and exhausting to stack #8, capacity: 1.65 tons of metal per hour, each.

(c) Two (2) on-line electric induction melting furnaces, identified as PT #2 and PT #4, controlled by the CBS baghouse and exhausting to stack #8, capacity: 1.65 tons of metal per hour, each.

(d) One (1) hot oil quench unit, identified as PT #15.

(e) Two (2) rough milling units, identified as PT #13, controlled by the CBS cyclone/bag filter and exhausting to stack #10.

All other permitted emission units have been removed from this source. The emission units removed include the skiving unit at the Cast Bronze Strip (CBS) Line, MIBA Lines 1 and 2, the open top vapor degreaser, the Cu/Pb powder line and the insignificant babbitting operation. Also, the three (3) boilers will not operate on No. 2 fuel oil.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving New Source Review Approval

There are no new facilities proposed at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including:

(1) three (3) oxygen scavenging flames (units 81, 82 and 16) with a total capacity of 0.1 million British thermal unit per hour;

(2) two (2) pre-ladle heaters (units 9 and 10) with a total capacity of 0.7 million British thermal unit per hour; and

(3) three (3) natural gas-fired boilers, identified as boilers #1, #2 and #3 (units 50, 60 and 70), all constructed prior to 1972, with heat input capacities of 8.37, 5.02 and 6.69 million British thermal units per hour, respectively. [326 IAC 6-2-3]

(b) Refractory storage not requiring air pollution control equipment.

(c) Application of oils, greases lubricants or other nonvolatile materials applied as temporary protective coatings.

(d) Machining where an aqueous cutting coolant continuously floods the machining interface.

(e) Cleaners and solvents characterized as follows:

(1) having a vapor pressure equal to or less than 2 kiloPascals; 15 millimeters of mercury; or 0.3 pounds per square inch measured at 38EC (100EF); or

(2) having a vapor pressure equal to or less than 0.7 kiloPascals; 5 millimeters of mercury; or 0.1 pounds per square inch measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(f) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. Welding operations use less than six hundred and twenty-five (625) pounds of wire or rod per day.

(g) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1 percent by volume.

(h) Any operation using aqueous solutions containing less than 1 percent by weight of VOCs excluding HAPs.

(i) Quenching operations used with heat treating processes.

(j) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(k) Paved roads and parking lots with public access.

(l) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(m) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume. [326 IAC 6-3-2]

(n) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6-3-2]

(o) A laboratory as defined in 326 IAC 2-7-1(21)(D).

(p) Other activities or categories not previously identified:

(1) Miscellaneous dry machining and deburring operations producing large shavings.

(2) Miscellaneous metal washing operations.

(3) One (1) aluminum/bronze wet machining operation, rated at 275 pounds of aluminum/bronze per hour.

(4) One (1) bronze wet machining operation, rated at 1,200 pounds of bronze per hour.

(5) One (1) nickel electroplating operation, rated at 6.69 pounds per hour of bath solution.

(6) One (1) immersion tin dip operation, capacity: 275 pounds per hour.

(7) Two (2) rough dry mills, capacity: 80 pounds per hour, each.

(8) One (1) finish wet mill, capacity: 70 pounds per hour.

Existing Approvals

(a) FESOP 031-7991-00002, issued on June 24, 1997;

(b) First Administrative Amendment 031-8809, issued on August 19, 1997;

(c) Second Administrative Amendment 031-9157, issued on December 4, 1997;

(d) Third Administrative Amendment 031-10219, issued on October 27, 1998;

(e) First Significant Permit Revision 031-10147, issued on June 18, 1999; and

(f) Fourth Administrative Amendment 031-14342, issued on July 27, 2001.

All conditions from previous approvals, that were not removed in subsequent amendments or revisions, were incorporated into this FESOP except the following:

(a) First Significant Permit Revision 031-10147, issued on June 18, 1999

Conditions D.1.1 through D.1.5: Construction Conditions

Reason not incorporated: All of the units have been constructed.

(b) First Significant Permit Revision 031-10147, issued on June 18, 1999

Condition D.1.6:

The PM_{10} emissions from the CBS line and MIBA Lines #1 and #2 shall be limited to 9.6 pounds per hour. Compliance with this limit including the limit in Section D.2.1, and the insignificant activities will make 326 IAC 2-7 (Part 70 Permit) not applicable.

Reason not incorporated:

The furnaces at the CBS Line exhaust through stack #8, while the rough milling units exhaust to stack #10. Therefore, they must comply with separate limitations. In addition the MIBA lines have been removed from this source. Therefore, the potential to emit PM_{10} from the CBS Line furnaces is limited to 9.6 pounds per hour and the PM_{10} emissions CBS Line rough milling units are also limited to 9.6 pounds per hour in this proposed FESOP. This will still limit the total source potential to emit PM_{10} to less than 100 tons per year.

(c) First Significant Permit Revision 031-10147, issued on June 18, 1999

Condition D.1.7:

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the CBS line and MIBA Lines #1 and #2 shall not exceed 9.6 pounds per hour when operating at a process weight rate of four thousand five hundred (4,500) pounds per hour of bronze and two thousand four hundred (2,400) pounds per hour of steel, and 272 pounds per hour of bronze/aluminum.

The pounds per hour limitation shall be calculated using the following equation:

Interpolation and extrapolation of the data for the process weight rate of up to sixty thousand (60,000) pounds per hour shall be accomplished by the use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Reason not incorporated:

This source is subject to the requirements of 326 IAC 6-3-2, Particulate emission limitations, work practices, and control technologies, which limits particulate emissions based on the equation above. However, the MIBA Lines have been removed from the source and the limitation is calculated based on the process weight rate of the CBS Line, as it was prior to construction of the MIBA Lines. Therefore, this limit is revised in this proposed FESOP to

8.27 pounds of particulate per hour. In addition, the furnaces at the CBS Line exhaust through stack #8, while the rough milling units exhaust to stack #10. Therefore, they are limited separately.

(d) First Significant Permit Revision 031-10147, issued on June 18, 1999

Condition D.1.8:

Pursuant to the new Rule 326 IAC 2-1.1, any change or modification which may increase any pollutant emissions to a registration level or more from the equipment covered in this FESOP must be approved by the Office of Air Management (OAM) before such change may occur.

Reason not incorporated:

This is a FESOP source pursuant to 326 IAC 2-8, FESOP. The potential to emit is greater than registration levels. This source must comply with the revision approval requirements of 326 IAC 2-8-10, Administrative permit amendments, and 326 IAC 2-8-11.1, Permit revisions.

(e) First Significant Permit Revision 031-10147, issued on June 18, 1999

Conditions D.2.1 through D.2.7: All conditions pertaining to the Cu/Pb Powder Line, PT #83

Reason not incorporated: The Cu/Pb Powder Line was removed in 2000.

(f) First Significant Permit Revision 031-10147, issued on June 18, 1999

Conditions D.4.1 through D.4.16: All conditions pertaining to the vapor degreaser, T-148

Reason not incorporated: The degreaser has been removed from this source.

(g) FESOP 031-7991-00002, issued on June 24, 1997

Condition D.3.4:

Visible emission notations of the boilers stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

Reason not incorporated:

IDEM, OAQ, has determined that particulate emissions from the three (3) boilers, with a

potential to emit 0.167 ton per year of PM and 0.668 ton per year of PM_{10}, total, are not significant enough to require visible emission notations.

(h) FESOP 031-7991-00002, issued on June 24, 1997

(1) Condition D.3.2:

Pursuant to 326 IAC 7-1.1-2 (SO_2 Emissions Limitations), the SO_2 emissions from boilers #1, #2 and #3 shall not exceed five-tenths (0.5) pounds per million British thermal units heat input when combusting no. 2 fuel oil. Based on a heating value of 0.140 Million British thermal unit per gallon of oil, the fuel sulfur content shall be limited to 0.49 percent (%) Sulfur.

(2) Condition D.3.5:

Compliance shall be determined using one of the following:

(A) Pursuant to 326 IAC 3-3-4 the Permittee shall:

(i) Analyze the oil sample to determine the sulfur content of the oil;

(ii) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted;

(iii) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling;

(iv) Vendor analysis of fuel delivered is acceptable, in lieu of the above, if accompanied by a certification; or

(B) The Permittee shall test for:

(i) Sulfur dioxide emissions from boilers #1, #2 and #3, using 40 CFR 60, Appendix A, Method 6; or

(ii) Sulfur content of oil burned as fuel by boilers #1, #2 and #3, using 40 CFR 60, Appendix A, Method 19.

(3) Condition D.3.6:

The Permittee shall maintain records to document compliance with Conditions D.3.1 and D.3.2. These records shall be maintained in accordance with Section C - General Record Keeping Requirements. These records shall include a minimum of the following:

(A) Calendar dates covered in the compliance determination period;

(B) Actual usage of #2 fuel oil since last compliance determination period;

(C) One of the following:

(i) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted

during the period and fuel supplier certifications; or

(ii) Results of analysis of oil samples to determine the sulfur content of the oil.

(D) The fuel supplier certification shall contain, as a minimum, the following:

(i) The name of the fuel supplier; and

(ii) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

(4) Condition D.3.7:

A quarterly summary of the information to document compliance with Condition D.3.2 shall be submitted to the address listed in Section C - General Reporting Requirements, within thirty (30) days after the end of the quarter being reported. The natural gas boiler certification located at the end of this permit, shall be submitted each quarter that any boiler burns only natural gas for fuel.

(5) Condition D.3.3:

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for each boiler.

Reasons not incorporated:

The applicant has indicated that the boilers will operate only on natural gas. Therefore, the potential to emit SO_2 from the three (3) boilers is less than twenty-five (25) tons per year, and the requirements of 326 IAC 7-1.1 are no longer applicable. The boilers are still capable of burning fuel oil. Thus, a condition in the permit will require that the boilers use natural gas only.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was

received on September 28, 2001. Additional information was received on August 12, 16 and 19, 2002.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See pages 1 through 3 of 3 of Appendix A of this document for detailed emissions calculations.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	**Unrestricted Potential Emissions** (tons/year)
PM	199
PM_{10}	200
SO_2	0.056
VOC	5.50
CO	7.76
NO_X	9.24

Note: For the purpose of determining Title V applicability for particulates, PM_{10}, not PM, is the regulated pollutant in consideration.

HAPs	**Unrestricted Potential Emissions** (tons/year)
Lead	0.081
Cadmium	0.0001
Chromium	0.0001
Manganese	0.00004
Nickel	0.0002
Benzene	0.0002
Dichlorobenzene	0.0001
Formaldehyde	0.007
Hexane	0.166
Toluene	0.0003
TOTAL	0.247

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM_{10} is equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability. The source melts ready to melt ignots and applies the bronze to steel sheets. Therefore, the source is not a secondary metal production plant.

Potential to Emit After Issuance

The source, issued a FESOP on June 24, 1997, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of the Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit After Issuance (tons/year)						
Process/emission unit	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_X**	**HAPs**
Cast Bronze Strip Line (CBS)	72.4	84.1	-	-	-	-	0.081
Three (3) insignificant boilers	0.167	0.668	0.053	0.484	7.39	8.80	0.166
Insignificant Activities (excluding boilers)	5.00	5.00	0.003	5.02	0.368	0.438	0.008
Total PTE After Issuance	77.6	Less than 100	0.056	5.50	7.76	9.24	Single less than 10 Total less than 25

The potential to emit PM_{10} at the CBS Line is based on the limitations of 326 IAC 2-8, FESOP, and the potential to emit PM at the CBS Line is based on the limitation of 326 IAC 6-3-2, Particulate emission limitations, work practices, and control technologies, when operating at the allowable hourly emissions rate every hour of the year. All other values represent the unrestricted potential to emit.

County Attainment Status

The source is located in Decatur County.

Pollutant	Status
PM_{10}	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Decatur County has been designated as attainment or unclassifiable for ozone.

(b) Decatur County has been classified as attainment, maintenance attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) The requirements of 40 CFR 60.130, Subpart M, Standards of Performance for Secondary Brass Production Plants, are not still not applicable to this source because the source is not considered a secondary brass or bronze production plant. The source melts ready to melt ignots and pours the bronze on steel sheets. Therefore, the source is not producing secondary bronze products and the requirements of 40 CFR 60, Subpart M, are still not applicable.

(c) The three (3) boilers were constructed prior to August 17, 1971. Therefore, the requirements of 40 CFR 60.40, 60.40a, 60.40b or 60.40c, Subparts D, Da, Db and Dc, are not applicable.

(d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, 40 CFR Part 61 and 40 CFR Part 63) applicable to this source.

(e) The requirements of 40 CFR 63.460, Subpart T, are no longer applicable to this source because the vapor degreaser has been removed from this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

(a) Construction of the three (3) boilers that commenced prior to August 7, 1977 was not subject to the PSD requirements of 326 IAC 2-2.

(b) This source, located in an Decatur County, which is an attainment county for all criteria pollutants, has a total unrestricted potential to emit each criteria pollutant of less than 250 tons per year and is not in one of the twenty-eight listed source categories. Therefore, this

source is not a major source pursuant to 326 IAC 2-2, PSD.

326 IAC 2-6 (Emission Reporting)

This source is located in Decatur County and the potential to emit PM_{10} is less than one hundred (100) tons per year. Therefore 326 IAC 2-6 does not apply.

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM_{10} shall be limited to less than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply. Specific limitations are as follows:

(a) The potential to emit PM_{10} from the Cast Bronze Strip (CBS) Line furnaces, all exhausting to the CBS baghouse and stack #8, shall not exceed a total of 9.6 pounds per hour.

(b) The potential to emit PM_{10} from the two (2) rough milling units at the Cast Bronze Strip (CBS) Line, both exhausting to the CBS cyclone/bag filter and stack #10, shall not exceed a total of 9.6 pounds per hour.

This will limit the potential to emit PM_{10} from the CBS Line to 19.2 pounds per hour, equivalent to 84.1 tons per year. The potential to emit PM_{10} from all other facilities at this source is no more than 6.26 tons per year. Therefore, these limitations will limit the potential to emit PM_{10} from the entire source to less than 100 tons per year, and make the requirements of 326 IAC 2-7, Part 70, not applicable. The potential to emit PM_{10} from the Cast Bronze Strip (CBS) Line furnaces, all exhausting to the CBS baghouse and stack #8, are 0.896 pound per hour after control by the baghouse, and the potential to emit PM_{10} from the two (2) rough milling units at the Cast Bronze Strip (CBS) Line, both exhausting to the CBS cyclone/bag filter and stack #10, is 0.437 pound per hour after control by the cyclone/bag filter. Therefore, the baghouse must be in operation at all times when any of the CBS Line furnaces are in operation, and the cyclone/bag filter must be in operation at all times when either or both of the rough milling units are in operation in order to demonstrate compliance with this limit.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating)

The three (3) boilers were existing and in operation prior to September 21, 1983. Therefore, pursuant to 326 IAC 6-2-3, particulate emissions from the three (3) boilers shall not exceed 0.8 pound per million British thermal unit heat input. The particulate emissions limitation is calculated using the

following equation:

$$Pt = C \times a \times h / 76.5 \times Q^{0.75} \times N^{0.25}$$

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

N = Number of stacks in fuel burning operation.

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 mmBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 mmBtu/hr heat input.

h = Stack height in feet.

Pursuant to 326 IAC 6-2-3(b), the emission limitations for those indirect heating facilities which were existing and in operation on or before June 8, 1972, shall be calculated where Q, N, and h shall include the parameters for all facilities in operation on June 8, 1972. Since the three (3) boilers were existing and in operation on or before June 8, 1972, the limitation is determined as follows:

For the three (3) boilers:
$Pt = 50 \times 0.67 \times 24 / 76.5 \times (20.03)^{0.75} \times 3^{0.25} = 0.84$ lb/MMBtu

Pursuant to 326 IAC 6-2-3(d), particulate emissions from all boilers constructed prior to June 8, 1972, shall not exceed 0.8 pound per million British thermal units. Therefore, the particulate emissions from the three (3) boilers are limited to 0.8 pound per million British thermal units.

Based on Appendix A, the potential to emit PM emissions from the three (3) boilers is:

0.167 tons/yr × (2000 lbs/ton / 8760 hrs/yr) = 0.038 lbs/hr
(0.038 lbs/hr / 20.03 MMBtu/hr) = 0.002 lbs PM per MMBtu

Therefore, the three (3) boilers will comply with this rule.

326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies)

(a) Pursuant to 326 IAC 6-3-2(e), the particulate emission rate from the Cast Bronze Strip (CBS) Line furnaces, all exhausting to the CBS baghouse and stack #8, shall not exceed 8.27 pounds per hour, total, when operating at a process weight rate of 5,700 pounds per hour, total. The potential to emit particulate at the CBS baghouse, exhausting to stack #8,

is 0.896 pound per hour after control by the baghouse. Therefore, the baghouse shall be in operation at all times when the CBS Line is in operation in order to comply with this limit. This limitation is based on the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

(b) Pursuant to 326 IAC 6-3-2(e), the particulate emission rate from the two (2) rough milling units at the Cast Bronze Strip (CBS) Line, both exhausting to the CBS cyclone/bag filter and stack #10, shall not exceed 8.27 pounds per hour, total, when operating at a process weight rate of 5,700 pounds per hour, total. The potential to emit particulate at the CBS cyclone/bag filter, exhausting to stack #10, is 0.437 pound per hour after control by the cyclone/bag filter. Therefore, the cyclone/bag filter shall be in operation at all times when the CBS Line is in operation in order to comply with this limit. This limitation is based on the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

(c) Pursuant to 326 IAC 6-3-2(e), the particulate from the insignificant grinding and machining operations and the insignificant furnaces shall each be limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

(d) The insignificant welding operations use less than six hundred twenty-five (625) pounds of welding wire or rod per day. Therefore, pursuant to 326 IAC 6-3-1(b)(9), the welding is exempt from requirements of 326 IAC 6-3, Particulate Emission Limitations for Manufacturing Processes.

(e) All insignificant manufacturing operations, except for the grinding and machining and furnaces, have potential emissions less than 0.551 pound per hour. Therefore, pursuant to 326 IAC 6-3-1(b)(14), all other insignificant manufacturing operations are exempt from the requirements of 326 IAC 6-3, Particulate Emission Limitations for Manufacturing Processes.

326 IAC 7 (Sulfur Dioxide Rules)

The potential to emit SO_2 from the three (3) boilers is less than twenty-five (25) tons per year. The boilers will be permitted to operate on natural gas, only. Therefore, the requirements of 326 IAC 7-1.1 are not applicable.

326 IAC 9 (Carbon Monoxide Emission Limits)

(a) The three (3) boilers at this source were all constructed prior to March 21, 1972. Therefore, the requirements of 326 IAC 9 are not applicable.

(b) The only other facilities that emit CO at this source are the insignificant combustion units. There are is no petroleum refining, ferrous metal smelting or solid waste incineration at this source. Therefore, 326 IAC 9-1-2, Carbon monoxide emission limitations, is not applicable.

326 IAC 10 (Nitrogen Oxides Rules)

This source is not located in Clark or Floyd counties. Therefore, the requirements of 326 IAC 10 cannot be applicable.

326 IAC 11-1 (Existing Foundries)

This source does not contain any foundry processes in operation prior to December 6, 1968. Therefore, the requirements of 326 IAC 11-1 are not applicable.

326 IAC 15-1 (Lead Emission Limitations)

This source is not listed in 326 IAC 15-1-2. Therefore, the requirements of 326 IAC 15-1 are not applicable.

Testing Requirements

Previous approvals only required initial stack tests for PM, PM_{10} and Lead at the CBS Line to verify the emission calculations. Stack tests were also required for the powder coating line which has been removed from operation.

Previous stack tests for the CBS Line were conducted on June 18 and 19, 1997. These tests demonstrated that the source was in compliance with the emission limitations in the previous FESOP. Since all melting operations exhaust to stack #8, PM and PM_{10} testing will be required for emission for stack #8, only, within 90 days of the issuance date of this proposed FESOP and at least once every five (5) years, thereafter.

The source also conducted voluntary tests of the insignificant wet milling operations, identified as the grinding and machining operations.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D

of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

(a) The following new compliance requirements were incorporated into this FESOP:

(1) An inspection shall be performed within the last month of each calendar quarter of all bags controlling the CBS Line. All defective bags shall be replaced.

(2) An inspection shall be performed within the last month of each calendar quarter of all cyclones controlling the CBS Line.

(3) In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouse for the CBS Line furnaces and the cyclone/bag filter for the two (2) rough milling units at the CBS Line must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies) and 326 IAC 2-8 (FESOP).

All other compliance monitoring requirements are from previously issued permits. However, the visible emission notations for the CBS Line stacks are now required once per shift rather than once daily and the parametric monitoring is also required once per shift, instead of once daily. IDEM, OAQ, has determined that, for this type of operation, monitoring once per shift is required to ensure continuous compliance.

(b) The compliance monitoring requirements from previously issued permits which are applicable to this source are as follows:

(1) Visible emission notations of the CBS Line stacks (stack #8 and stack #10) exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(2) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the CBS Line furnaces at least once per shift when the furnaces are in operation. When for any one reading, the pressure drop across the bag-

house is outside the normal range of 2.0 and 5.0 inches of water or a range established during the latest stack test, , the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(3) The Permittee shall record the total static pressure drop across the cyclone/bag filter combination used in conjunction with the CBS Line rough milling units at least once per shift when the rough milling units are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.5 and 4.5 inches of water or a range established during the latest stack test, , the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(4) In the event that bag failure has been observed:

(A) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(B) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouse for the CBS Line furnaces and the cyclone/bag filter for the two (2) rough milling units at the CBS Line must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies) and 326 IAC 2-8 (FESOP).

(c) All compliance requirements from previous approvals were incorporated into this FESOP except the following:

Visible emission notations of the boilers stack exhausts shall be performed once per shift

during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan these units shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

Reason not incorporated:

IDEM, OAQ, has determined that particulate emissions from the three (3) boilers, with a potential to emit 0.167 ton per year of PM and 0.668 ton per year of PM_{10}, total, are not significant enough to require visible emission notations.

Conclusion

The operation of this bearings manufacturing source shall be subject to the conditions of the attached proposed FESOP No.: F 031-14976-00002.

Appendix A: Emission Calculations
Process Operations

Company Name: KS Bearings, Inc.
Address City IN Zip: 1515 West Main Street, Greensburg, Indiana 47240
FESOP: 031-14976
Plt ID: 031-00002
Reviewer: CarrieAnn Paukowits
Date: September 28, 2001

Stack Emissions

Unit ID	Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)	Gas or Air Flow Rate (acfm.)	PM Emission Rate before Controls (lb/hr)	PM Emission Rate before Controls (tons/yr)	PM Emission Rate after Controls (lb/hr)	PM Emission Rate after Controls (tons/yr)
Cast Bronze Strip (CBS) Line Baghouse exhausting to stack 8	96.0%	0.005	20900	22.4	98.1	0.896	3.92
Cast Bronze Strip (CBS) Line Cyclone/Baghouse exhausting to stack 10	98.0%	0.020	2550	21.9	95.7	0.437	1.91
			Total:	44.3	194	1.33	5.84

Methodology
Assume PM-10 = PM
Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (sq. ft.) ((cub. ft./min.)/sq. ft.) (60 min/hr) (lb/7000 grains)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls): (lbs/hr)/(1-control efficiency)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Unit ID	Lead (Pb) Emissions* (lbs/hr)	Process Weight Rate During Test (lbs/hr)	Maximum Process Weight Rate (lbs/hr)	Pb Emission Rate after Controls (lb/hr)	Pb Emission Rate after Controls (tons/yr)	Control Efficiency (%)	Pb Emission Rate before Controls (lb/hr)	Pb Emission Rate before Controls (tons/yr)
Cast Bronze Strip (CBS) Line Baghouse exhausting to stack 8	0.000079	5255	5700	0.00009	0.0004	96.0%	0.002	0.009
Cast Bronze Strip (CBS) Line Cyclone/Baghouse exhausting to stack 10	0.000300	5255	5700	0.00033	0.0014	98.0%	0.016	0.071
			Total:	0.0004	0.002		0.018	0.081

*Based on stack test
Methodology
Emission Rate in lbs/hr after controls = Emission Rate in lbs/hr (based on the stack test) x Maximum Process weight rate/Process weight rate during test
Emission Rate in lbs/hr before controls = Emission Rate in lbs/hr before controls / (1-control efficiency)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Fugitive Emissions

Unit ID		PM-10 Emission Factor (lbs/ton)	Maximum Process Weight Rate (lbs/hr)	PM and PM-10 Emission Rate (lb/hr)	PM and PM-10 Emission Rate (tons/yr)
Fugitive Emissions from CBS Line based on Electric Induction Furnaces (SCC 3-04-002-38)		0.040	3300	0.066	0.289
Casting Emissions from CBS Line (SCC 3-04-002-39)		0.015	5700	0.043	0.187
			Total:	0.066	0.289

Methodology
Emission Rate in lbs/hrs =Maximum Process Weight Rate in lbs/hr (weight of charge for furnace emissions and weight of product for casting emissions) x PM-10 Emission Factor (based on FIRES 6.23)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Insignificant Combustion

Company Name: KS Bearings, Inc.
Address City IN Zip: 1515 West Main Street, Greensburg, Indiana 47240
FESOP: 031-14976
Plt ID: 031-00002
Reviewer: CarrieAnn Paukowits
Date: September 28, 2001

Insignificant combustion excluding boilers

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
1.0000	8.76

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.008	0.033	0.003	0.438	0.024	0.368

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Boilers when operating on Natural Gas

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
20.0800	175.90

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.167	0.668	0.053	8.80	0.484	7.39

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 3 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Company Name: KS Bearings, Inc.
Address City IN Zip: 1515 West Main Street, Greensburg, Indiana 47240
FESOP: 031-14976
Plt ID: 031-00002
Reviewer: CarrieAnn Paukowits
Date: September 28, 2001

Insignificant combustion excluding boilers

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	9.20E-06	5.26E-06	3.29E-04	7.88E-03	1.49E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel	Total HAPs
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	2.19E-06	4.82E-06	6.13E-06	1.66E-06	9.20E-06	0.008

Insignificant boilers

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.85E-04	1.06E-04	6.60E-03	1.58E-01	2.99E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel	Total HAPs
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	4.40E-05	9.67E-05	1.23E-04	3.34E-05	1.85E-04	0.166

Methodology is the same as page 2.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.